

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 03/15788

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01J19/00 H01M8/00 B01D1/00 C01B3/38

10/541382

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J H01M B01D C01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	US 2003/019638 A1 (SIMPSON NEIL ANDREW ABERCROMBI) 30 January 2003 (2003-01-30)	1, 4
P, A	page 2, paragraph 29 - page 3, paragraph 31	11
P, A	page 3, paragraph 33 - page 4, paragraph 36; figures	
P, A	US 2003/093950 A1 (YU PAUL T ET AL) 22 May 2003 (2003-05-22)	1
	figures 1, 2	
X	US 2001/032468 A1 (AJIRO TAIKO ET AL) 25 October 2001 (2001-10-25)	1
	figure 2	
X	DE 197 17 544 A (EBERSPAECHER J GMBH & CO) 29 October 1998 (1998-10-29)	1
	figures	
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

19 April 2004

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 2002/071975 A1 (SHIMAZU TAKASHI)  13 June 2002 (2002-06-13)  figure 1</p> <p>-----</p>	1,3

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 03/15788

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003019638 A1	30-01-2003	AU 1867900 A	12-07-2000
		AU 1868700 A	12-07-2000
		AU 765292 B2	11-09-2003
		AU 1868800 A	12-07-2000
		AU 766855 B2	23-10-2003
		AU 1868900 A	12-07-2000
		AU 1876600 A	12-07-2000
		AU 766437 B2	16-10-2003
		AU 1876800 A	12-07-2000
		CA 2356130 A1	29-06-2000
		CA 2356131 A1	29-06-2000
		CA 2356144 A1	29-06-2000
		CA 2356148 A1	29-06-2000
		CA 2356184 A1	29-06-2000
		CA 2356194 A1	29-06-2000
		EP 1147287 A2	24-10-2001
		EP 1141517 A1	10-10-2001
		EP 1141515 A1	10-10-2001
		EP 1144802 A2	17-10-2001
		EP 1151180 A1	07-11-2001
		EP 1141518 A1	10-10-2001
		GB 2383361 A	25-06-2003
		GB 2382832 A ,B	11-06-2003
		GB 2383065 A ,B	18-06-2003
		WO 0037766 A2	29-06-2000
		WO 0037771 A1	29-06-2000
		WO 0037768 A1	29-06-2000
		WO 0037767 A2	29-06-2000
		WO 0037772 A1	29-06-2000
		WO 0037773 A1	29-06-2000
		GB 2345308 A ,B	05-07-2000
		GB 2346632 A ,B	16-08-2000
		GB 2346400 A ,B	09-08-2000
		GB 2346909 A ,B	23-08-2000
		GB 2347445 A ,B	06-09-2000
		NO 20012596 A	27-07-2001
		NO 20012597 A	27-07-2001
		NO 20012598 A	30-07-2001
		NO 20012599 A	30-07-2001
		NO 20012600 A	30-07-2001
		NO 20012865 A	07-08-2001
		US 2002195256 A1	26-12-2002
		US 2003136561 A1	24-07-2003
		US 2003132032 A1	17-07-2003
		US 2002166668 A1	14-11-2002
		US 6543552 B1	08-04-2003
		US 2002145281 A1	10-10-2002
		US 2002079106 A1	27-06-2002
		US 2002060079 A1	23-05-2002
US 2003093950 A1	22-05-2003	DE 10252076 A1	05-06-2003
		JP 2003197243 A	11-07-2003
US 2001032468 A1	25-10-2001	US 6282902 B1	04-09-2001
		US 6014863 A	18-01-2000
		US 2001032451 A1	25-10-2001
		DE 19721712 A1	04-12-1997
		JP 11200224 A	27-07-1999

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 03/15788

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2001032468 A1		JP 3063622 B2 JP 9317408 A JP 11159741 A US 6058856 A	12-07-2000 09-12-1997 15-06-1999 09-05-2000
DE 19717544 A	29-10-1998	DE 19717544 A1 CZ 9903763 A3 WO 9849494 A1 DE 19880561 D2	29-10-1998 13-12-2000 05-11-1998 05-08-1999
US 2002071975 A1	13-06-2002	JP 2002179401 A DE 10160556 A1	26-06-2002 11-07-2002